The Influence of Family Functioning and Family Structure on the Health of Children

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by

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Abstract

As families maintain the primary care of children, it is important to understand the role the family plays in the development of children. One aspect of child development that has been found to be related to the family is child health. The literature on the effects of family functioning and family structure on the health of children is reviewed in this paper. This overview has been divided into two categories: family functioning and family structure. The literature on each of these categories is presented first followed by a discussion of the findings along with opportunities for further research.

The influence of family functioning and family structure on the health of children

This paper provides an overview of the literature on the effects of family functioning and family structure on the health of children. For the purpose of this review, family functioning has been defined in terms of the characteristics of a family's interpersonal relationships which include the level of cohesion, expressiveness, conflict, acceptance of independence, and control. Family structure has been defined in terms of the household composition. Parental marital status and sibships have both been explored.

Several indices of health have been studied. Chronic illnesses such as eating disorders, cancer, asthma, and diabetes have been the focus of this review. When choosing studies for this review, attention was given to the age of the subjects studied. By including studies on eating disorders, the mean age is higher than what might be expected because eating disorders are most common among adolescents and young adults. For this reason, studies sampling college students were also incorporated into this review.

The search for the studies for this review included both psychological and medical journals. The search started as far back as 1960, but the research relevant to this review did not start appearing until the late 1960's and early 1970's. Work on this area is continuing through the present time. The purpose of this review was to accumulate the information already available and to outline areas in need of future research.

Family Functioning

The relationship between family functioning and disease is a subject of increasing interest as the concept of psychosocial factors in the etiology of disease widens. The focus of this research is on the familial environment. Studies which analyze the influence of cohesion, expressiveness, conflict, acceptance of independence, and control on health have been subdivided into five categories of health for presentation: overall health, eating disorders, asthma, cancer, and diabetes. The literature on each of these categories will be presented first followed by a discussion of the findings.

The majority of the studies in this area are conducted on eating disorders. These studies include primarily females. However, the research on chronic illness includes a relatively equal number of males and females. Data was collected from the subjects through either questionnaire or interview. The majority, however, was collected through self-report on questionnaires.

Overall Health

The literature on family functioning and overall health is small but significant. Mechanic and Hansell (1989) studied the effects of family conflict and divorce on the well-being of adolescents. This three year, longitudinal study drew its sample from both inner city and middle-class suburban adolescents from the seventh, ninth, and eleventh grades of nineteen public schools in five communities in New Jersey. On a single question

regarding family functioning, thirty-eight percent of the adolescents (n = 3,215) reported frequent quarreling or fighting at home. While not reporting on family conflict, parents (n = 1,528) reported on the level of disagreement with their adolescents and on how often their child exhibited behavioral problems. The health level of the adolescents was assessed by a twelve item measure of common physical symptoms (Mechanic, 1979, 1980).

The results of this study indicated that higher levels of family conflict were associated significantly with longitudinal increases in physical symptoms. Although the family conflict measure in this study did not specify which family members were involved in the conflict, other statistics did indicate that the family conflict measure reflected parental marital conflict more than parent-child conflict. In either case, family functioning was found to effect the physical health of adolescents. Health in this study was restricted to physical symptoms such as headaches and stomachaches.

Eating Disorders

Family functioning has been linked not only to physical symptoms, but also to specific health issues like the etiology of eating disorders. It has been speculated that family dysfunction is linked to the origin and maintenance of eating disorders. Theories have postulated that anorexics and bulimics experience difficulties in separating from their families to develop a strong sense of autonomy in adolescence and young adulthood.

This has been presumed to be the result of impaired interaction patterns, affective expression, and role structure.

In anorexia, it is thought that daughters attempt to establish harmony and closeness within their families by giving up their own needs to develop a sense of identity. This is presumed to be an attempt to focus on the illness and not on the parental distress and marital conflict thereby enabling the parents to work together to help the sick child. A different family pattern is believed to exist in bulimia and bulimia-anorexia. These families are believed to be more critical and neglectful of family members. It has been suggested that the binge-purge cycle symbolizes the bulimics' craving for nurturance during the binge cycle and projecting of hostility and frustration during the purge cycle. These characteristics are believed to separate the types of eating disorders as well as to serve as a tool by which to identify at-risk children.

The literature on the familial characteristics among eating disorders is quite diverse. Many are attempts to define the characteristics whereas some are attempts at determining the family's role in the maintenance and/or outcome of eating disorders. In the majority of the studies, a self-report family environment scale is administered to assess the level of family functioning. Some of these assessment devices assess general family functioning in terms of problem-solving, communication style, affective responsiveness, or affective involvement. An example of this type of scale is the Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983). Other scales, however, assess specific aspects of family functioning like cohesion,

expressiveness, conflict, independence, and control. Examples of this type of scale are versions of the Family Environment Scale (FES; Moos, 1974; Moos & Moos, 1980, 1981), the Family Adaptability and Cohesion Evaluation Scale (FACES; Olson, Bell, & Portner, 1978; Olson, Sprenkle, & Russell, 1979; Olson, Portner, & Lavee, 1985; Olson, Russell, & Sprenkle, 1987), and the Family Dynamics Survey (FDS; Berren & Shisslak, 1980).

Waller, Calam, and Slade (1989) studied forty-one eating disordered and twenty-seven non-clinical women to determine if aspects of family functioning differed between clinical and non-clinical families and if aspects of family functioning differed between types of eating disorders. Utilizing the FAD (Epstein, Bishop, & Levin, 1983), the study's results indicated that women with eating disorders rated their families higher on the FAD than did the non-clinical women. High scores on the FAD showed a perceived unhealthy family functioning. This, therefore, revealed a difference between eating disordered and non-clinical women in perceived family functioning.

Among the types of eating disorders, anorexics perceived their families as having unhealthy affective involvement. Bulimic women rated their families as poor on problem-solving and affective involvement. This shows a similarity between the family functioning of anorexic and bulimic women. Therefore, the suggestion of a discriminant difference between types of eating disorders.

A second study utilizing the FAD (Epstein, Baldwin, & Bishop, 1983) explored the link between eating problems and self-reported family interaction styles (Steiger, Puentes-Neuman, &

Leung, 1991). Girls from middle- to upper-middle income, urban English (n = 259) and French (n = 456) high schools were categorized into four groups based on the scores from an eating attitudes test: bingers, restricters, asymptomatics, and unclassifiables. Those classified as bingers rated their families as less cohesive whereas restricters and asymptomatics rated their families similarly on cohesion. Although family functioning was assessed through the respondents' perceptions, meaningful differences were found across groups suggesting different characteristics were present among the families of different subgroups of eating disorders.

In a similar study of 114 young women (mean age 21.7 years) with eating disorders from white middle and upper-middle families and their parents (all were mothers except for two fathers of bulimics), Stern, Dixon, Jones, Lake, Nemzer, and Sansone (1989) had both the parent and the daughter complete the FES (Moos & Moos, 1981). The daughters were divided into four groups based on an eating attitudes test; restricting anorexics, bulimic-anorexics, bulimics, and non-clinical controls. Families with eating disorders tended to rate themselves as less supportive, less encouraging of expression of feelings, and more prone to conflict than did the non-clinical control families. The most consistent rating among the eating disordered families was being low in expressiveness.

Analysis of differences between the eating disorder groups only found bulimic-anorexics to be significantly lower on cohesion, expressiveness, and conflict scales whereas restricting anorexics and bulimics rated similarly on these scales. Overall,

regardless of group, parents rated family functioning much more positively than did the daughters. These findings suggest not only a difference between family functioning in eating disordered and non-clinical families, but also between the perceptions of the parents and children regarding the functioning of the family. As far as finding differences between types of eating disorders, bulimic-anorexic families were the only ones found to differ significantly from either bulimics or restricting anorexics which did not differ themselves.

In an attempt to differentiate between the types of eating disorders, Humphrey (1988) analyzed seventy-four family triads, including a teen-age daughter and her biological parents. The results supported the notion that the families of bulimics, bulimic-anorexics, and anorexics experience both distress and dissatisfaction with one another. Further analysis revealed that daughters in both bulimic groups were blaming, rejecting, and neglectful toward their parents. When reacting to their parents, these daughters were sulky, withdrawn, and avoidant. They also perceived their fathers as less understanding, nurturant, and protective. Mothers were the only parent to perceive their daughters as less disclosing, approaching, and trusting.

In the anorexic group, daughters and parents where much more positive about their relationships. The daughters did, however, see their fathers as sulky, withdrawn, and avoidant when reacting to their daughters. Mothers tended to perceive their daughters as less understanding and trusting and attributed all of the difficulties between them and their daughters to their daughters.

In another study of seventy-four family triads, including a teen-age daughter and her biological parents, Humphrey (1989) observed the interactions between the triad members. Mothers of anorexics were observed to be nurturing and comforting and to be ignoring and neglectful. By contrast, mothers of bulimics were observed as belittling, ignoring, neglecting, sulking, and appeasing toward their daughters. Humphrey concluded that the parents of anorexics were more nurturing and comforting and more ignoring and neglecting toward their daughters. Mothers of the bulimic-anorexics showed no distinct pattern of interaction. When observing the daughters, anorexics were submitting toward their mothers. Bulimics, on the other hand, were belittling toward their mothers. Again, bulimic-anorexics showed no distinct interaction pattern.

In the father-daughter dyads, fathers of anorexics were nurturing and comforting and ignoring and neglecting. The daughters were submitting. Fathers of bulimics were belittling. The daughters' interaction patterns were not distinct as was found with the bulimic- anorexics and their fathers.

In one of few studies which sampled males in addition to females, Kagan and Squires (1986) studied 300 college students (females = 195; males = 105) on measures of adaptability (chaotic, flexible, structured, rigid), cohesion (disengaged, separated, connected, enmeshed), and eating behavior (dieting and compulsive eating). The results indicated that perceived family cohesiveness and adaptability were unrelated to dieting behavior among both males and females.

Compulsive eating among females, however, was found to be associated with a lack of cohesion. It was unrelated to adaptability. For males, compulsive eating was significantly related to rigidity and lack of cohesion in the family. The findings for the males should be considered with caution because the area is relatively unresearched.

Studies on eating disorders and family functioning have not been restricted to comparisons between types, research has been conducted on single types and most of this research has been conducted on bulimia. Krueger and Bornstein (1987) studied 129 college women classified as either bulimic (n = 17), binge-eating (n = 13), or normal (n = 99) using the FAD (Epstein, Baldwin, & Bishop, 1983). The findings suggest that the roles and communication in bulimic families were significantly more dysfunctional than for normals.

McNamara and Loveman (1990) administered the FAD (Epstein, Baldwin, and Bishop, 1983) to 600 undergraduate college women who had previously been screened to identify membership into three groups; bulimic (n = 30), repeat dieters (n = 61), and nondieters (n = 59). The results indicated that bulimics perceived their families as more dysfunctional than both repeat dieters and nondieters. Bulimics rated their families as higher in affective involvement, but less in affective responsiveness. Poorer problem-solving skills and family communication were also frequently rated by the bulimics. Dieters, however, did not differ from nondieters on their family ratings.

In a study examining the relationship between self-reported bulimic behavior and perceptions of family cohesion and

adaptability, Coburn and Ganong (1989) administered the FACES III (Olson, Portner, & Lavee, 1985) to 308 female sorority members (bulimic, n = 21, non-bulimic, n = 267). The results indicated that college females who were bulimic tended to perceive their families as having lower levels of cohesion. More specifically, bulimics were more likely than non-bulimics to perceive their families as disengaged. On levels of adaptability, no significant difference was found.

In an attempt to differentiate between family functioning among bulimics and bulimic-anorexics, the FES (Moos, 1974), and the FDS (Berren & Shisslak, 1980) were utilized to study the families of twenty-four bulimic, thirteen bulimic-anorexic, and forty-one normal control females (Shisslak, Mc Keon, & Crago, 1990). Bulimics and bulimic-anorexics perceived their families as more dysfunctional than the controls. These families were perceived as less cohesive and expressive, more conflictual, and less emotionally supportive. In differentiating between the perceptions of the bulimics and bulimic-anorexics, the bulimics perceived their families as signifiantly more conflicted than controls and the bulimic-anorexics perceived their families as significantly more discouraging of independence and as having significantly less closeness than both controls and bulimics.

Ordman and Kirschenbaum (1986) conducted a study of twenty-five bulimic women to address the familial characteristics associated with bulimia. The respondents completed the FES (Moos & Moos, 1980) and the FACES (Olson, Bell, & Portner, 1978). On the FES, the bulimic respondents described their families as less independent and expressive and more conflicted than did the non-

bulimic controls. On the FACES, the bulimics scored significantly lower on cohesion scales in relation to the scores of the non-bulimic controls. This study indicated that even with different measures, significant differences were found between the family functioning perceptions of bulimics and non-bulimics.

One hundred, seventy-four women participated in a study to test for family variables in the severity of bulimic-like symptoms (Bailey, 1991). Respondents completed the FES (Moos & Moos, 1981) and the Continuous Bulimia Scale (Pope & Hudson, 1984) which was used to conceptualize the severity continuum. The respondents' perceptions of their families pointed more to a chaotic and enmeshed style of family functioning. These families were perceived as lacking in commitment, help, and support and were characterized by anger, aggression, and conflict.

Humphrey (1986) also tested for family variables in bulimia-anorexia by analyzing forty biologically intact family triads (bulimic-anorexic, n =16, control, n = 24) using the FES (Moos & Moos, 1980) and the FACES (Olson, Bell, & Portner, 1978). The bulimic-anorexic families were found to experience more isolation, detachment and conflict and less support and involvement than did the controls. Both parents and daughters reported family dysfunction.

Humphrey (1987) conducted another study which found the families of bulimic-anorexics to be more distressed than the families of normal subjects. The bulimic-anorexic families were more belittling and ignoring and less helping, trusting, and nurturing. They were also seen as hostile and controlling. Perceptions of these families, as rated on the FES (Moos & Moos,

1980) and on the FACES (Olson, Bell, & Portner, 1978), indicated that the parents along with the bulimic-anorexics were dissatisfied with family life.

A case study of a twenty-three year old Muslim woman with bulimia gave an opportunity to analyze the factors which appear in the family of a bulimic (Liberman, 1989). An analysis of her family revealed a total of four bulimic children within the family. Enmeshment, rigidity, and conflict were characteristic of the family's functioning. The parent's marriage itself was riddled with conflict. The father was isolated and hostile while the mother was possessive of her sons and manipulative of her daughters. Although this is only a case study and the generalizability to the general population of bulimics is questionable, it does offer a framework from which to work when studying the larger population of bulimics. The family functioning patterns addressed here should be studies further for their validity.

In a analysis of parents only, Sights and Richards (1984) studied the parents (n = 24) of six bulimic and six non-bulimic college women by rating parental interviews on the Parental Characteristics Rating Scales (PCRS; Sights & Richards, 1984). The results illustrated a tendency for the parents in the bulimic group to be rated as more demanding than the parents of the non-bulimic group. Mothers in the two groups differed significantly on Domineering/Controlling variables, meaning that the mothers of bulimics were much more domineering and controlling than the mothers of the non-bulimics. Fathers in the two groups were found to differ in closeness ratings from early childhood of his

child to early adolescence. The fathers of bulimics had a significantly higher difference (a drop in closeness ratings) than the fathers of non-bulimics.

The styles of family functioning mentioned above have been associated with diagnostic outcome by two research teams. Crisp, Harding, and Mc Guinness (1974) administered the Middlesex Hospital Questionnaire (MHQ; Crown & Crisp, 1966) to the parents (mothers, n = 36, fathers, n = 32) of forty-four anorexic patients. The MHQ measured the psychoneurotic symptoms and characteristics of the parents which were not found to be significantly abnormal; however, increased marital conflict and parental depression were associated with poor outcome six months later with the anorexic patient.

In the second study, Crisp, Hsu, Harding, and Hartshorn (1980) studied 105 female anorexia patients at St. George's Hospital in London and their parents of whom all but three participated in the four-year follow-up. The family data was collected from the medical records of the patients. The results of this study indicated that the anorexic families enmeshed relationships was common especially when the parent relationship was poor. However, the parental relationship was slightly more likely to be apathetic instead of marked by high discord. Parents also tended to be rigid and overcontrolling. These parental characteristics were associated with poor patient outcome.

Although family functioning has been implicated in the etiology of eating disorders by many researchers, some studies have found no relationship (Kent & Clopton, 1988; Heron & Leheup,

1984; Rastam & Gillberg, 1991; Harding & Lachenmeyer, 1986). Kent and Clopton (1988) studied bulimics (n = 27), subclinical bulimics (n = 21), and normal controls (n = 35). Subclinical bulimics score too high on the Bulimic Test (BULIT; Smith and Thelen, 1984) to be grouped with the non-bulimics but scored too low to be grouped with the bulimics. The FES (Moos, 1974) was administered but no differences in family environment were found between the groups. The use of a non-clinical sample may account for the nonsignificant findings.

Heron and Leheup (1984) obtained family information from the case records of sixteen anorexic adolescents. The anorexic families experienced little external stress and the members of the family professed to be happy with the family unit. Perhaps it is this type of family functioning which perpetuates the desire of children to please their families. This characteristic is hypothesized as playing a significant role in clinically diagnosed anorexics. Therefore, this finding may not indicate a lack of family correlates in anorexia but rather support the notion that anorexic families are internally dysfunctional while appearing externally functional.

A Swedish study (Rastam & Gillberg, 1991) of anorexic patients (n = 51) and controls (n = 51) used a translated version of the FACES (Olson, Sprenkle, & Russell, 1979). The results suggested that there was no support for a specific type of family dysfunction in anorexic families. Most of these families actually displayed a family style unlike the stereotyped characteristics of enmeshment, overprotectiveness, rigidity, and conflict.

Finally, Harding and Lachenmeyer (1986) studied thirty Caucasian anorexic females and thirty Caucasian non-anorexic females. Using the data collected from the Structural Family Interaction Scale (SFIC; Perosa, Hansen, & Perosa, 1981), the anorexic and control groups were found not to differ on any of the variables on the SFIS. Family overprotectiveness, enmeshment, and rigidity were not found to be a significant factor in the families of anorexics. However, these respondents were older (mean age = 26.4 years). Possibly these people had moved away from home thereby reducing the influence of the family or making it difficulty to accurately recall family functioning patterns.

Overall, the literature on the influence of family functioning on eating disorders indicates a strong relationship. Characteristics like lack of cohesion, expressiveness, and acceptance of independence and increased conflict and control were consistently found to be significant variables in eating disorders. However, it is still unclear as to which variables are most significant to the differing types of eating disorders.

The most prominent problem with the eating disorder literature is causality. Although family correlates have been found, it is unknown if family dysfunction precedes the eating disorder or if the family dysfunction is a reaction to the eating disorder. Further research should include more parent perceptions. In the studies in which both children and parents participated, the parents perceived the family more positively than the children. Possibly the perceptions of the child are more negative as a reaction of the eating disorder. Or, it might

be that parents perceive the family more positively because they refuse to accept that the child has an eating disorder. More observational studies, in contrast to self-report studies, might shed light on this area.

Asthma

The link between family systems and the etiology of childhood asthma has been hypothesized for almost fifty years (Caroselli-Karinja, 1990). Asthma is a prevalent disease and its consequences for children can be so disabling that the need arises to refine the methods of treatment for these children (Baron, Veilleux, & Lamarre, 1992). Being as the family is becoming a part of the treatment for asthmatic children, it is important to understand the role the family plays in the maintenance and outcome of childhood asthma.

Hermanns, et. al. (1989) studied twenty-five asthmatic children, twenty-five healthy children and their mothers. The Five Minute Speech Sample (FMSS; Magana, Goldstein, Karno, Miklowitz, Jenkins, & Falloon, 1986) was used to assess the mothers' expressed emotions and a videotape of a mother-child interaction was used to assess the interactional pattern. The results showed that maternal critical attitudes were more characteristic among mothers of the asthmatic children. Also, these critical attitudes were expressed most by mothers of the children who experienced more frequent asthma attacks. Mothers tended to be most critical when in direct interaction with their asthmatic child.

Caroselli-Karinja (1990) pointed out that asthmatic children who required medical attention for their condition improved when separated from the parents because of the need for hospitalization. These families were found to have enmeshed and rigid characteristics which tended to prohibit improvement.

In another study of thirty-four asthmatic children, parental acceptance of the illness was found to be an important factor in the overall well-being of the asthmatic child (Baron, Veilleux, & Lamarre, 1992). The cohesiveness and support system of the family, as determined by FACES (Olson, Sprenkle, & Russell, 1979), was found to play a crucial role in the outcome of the illness. Further, it is purported that it is the mother of the asthmatic child which has the most crucial role in the outcome of the illness.

Not all studies on the role of the family in childhood asthma resulted in significant findings (Horwood, Ferguson, Hons, & Shannon, 1985). This longitudinal study of children at birth, age four months, and at annual six year intervals indicated that family stress was unrelated to the development of asthma among children.

Even though the literature of the area of childhood asthma is small, some important findings have been presented. For instance, the notion that the mother is important to the outcome of the illness more so than the father. However, it should be noted that in those studies emphasizing maternal interaction, causality is unclear. Perpetuation and outcome of asthma may be a reaction to critical or unsupportive maternal interactions or it may elicit the critical or unsupportive maternal interactions.

Still it has been reported by some that without changing the family environment, a lasting change in the illness cannot be expected (Baron, Veilleux, & Lamarre, 1992). However, some suggest that although individual cases may vary, examination of family structure, practices, or dynamics was not revealed as providing an etiological basis for the disease. More research, when added to the small amount at the present time, might clear up the ambiguity concerning the role of the family. Also, further research should focus more on the father's role, as well as the mother's role.

Cancer

Family studies have also been conducted among child cancer patients. Brown, Kaslow, Hazzard, Madan-Swain, Sexson, Lambert, & Baldwin (1992) studied fifty-five children who had been diagnosed with mild- to moderate-risk acute lymphocytic leukemia (ALL). Twenty-three youths had been recently diagnosed, twenty-two were in the maintenance phase (one year postdiagnosis), and ten were in the off-therapy group (one year postchemotherapy). The Structured Clinical Interview for Diagnosis (SCID; Spitzer, Williams, & Gibbon, 1987), the Locke-Wallace Marital Adjustment Questionnaire (Locke & Wallace, 1959), the Family Environment Scale (FES; Moos, 1986), the Children's Version of the Family Environment Scale (Pinto, Simons, & Slawinowski, 1984), and the Holmes-Rahe Stress Questionnaire (Holmes & Rahe, 1967) were utilized to assess family functioning.

The families of the recently diagnosed children were characterized by significant stress. The one year postdiagnosis

group and the off-therapy group reported more familial closeness, expression, and conflict in comparison to the newly diagnosed group. Parents of the off-therapy group reported more marital satisfaction. The finding that families in the off-therapy group reported more adaptive family functioning in relation to the other two groups suggests that coping with cancer strengthens the family unit.

The literature on family variables in childhood cancer is quite small and in need of expanding before any conclusions can be drawn. Further studies might reveal conflicting results that would add insight into the value of family in the outcome of treatments for childhood cancer. Radiation and Chemotherapy are very painful and potentially frightening procedures for adults let alone children and insight into the family's role might provide more effective ways of helping children and their families cope with those painful treatments.

Diabetes

Three research teams studied the role of family functioning in diabetes control. Marteau, Bloch, & Baum (1987) studied the parents of seventy-two children in a diabetic clinic. The Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959), the FES (Moos, 1974), and the Family Relations Index (FRI; Holahan & Moos, 1983) were used to gather the family data. Those children in families characterized by cohesion, emotional expressiveness, lack of conflict, and marital satisfaction exhibited better diabetic control.

In the second study, Hanson, Henggeler, Hanes, Burghen, and Moore (1989) sampled ninety-four intact families of insulin-dependent diabetes mellitus (IDDM) children over seven months. The Locke-Wallace Marital Adjustment Scale (Locke & Wallace, 1959) and FACES II (Olson, Portner, & Bell, 1982) were completed. Good diabetic control was associated with marital satisfaction, and family flexibility and slightly associated with family cohesion.

The third study included forty-two families with diabetic children (Auslander, Anderson, Bubb, Jung, & Santiago, 1990). The families completed the FES (Moos, 1986) to asses the family's functioning. Contrary to the previously discussed studies, these results indicated that family conflict and encouragement/support systems were not significantly different across children with good or poor diabetic control. However, family cohesion was significantly related to good diabetic control.

More research is needed in the area of diabetes because there is little existing data. With the data at the present time, though, cohesion could be pointed out as a potential factor. Further research would offer a better basis upon which to make definite conclusions.

The family functioning literature seems to implicate several family variables in the health of children. An enmeshed, conflicted, rigid, and controlling family environment have repeatedly been found to be factors in many areas of childhood health. More research, however, should be conducted on the chronic illnesses of childhood like asthma, cancer, and diabetes.

Also, more observational studies should be conducted to analyze interaction patterns because self-reports can be biased by the individuals' perceptions. Moreover, attempts at establishing causality would provide a basis upon which predictive assessments could be developed to aid in detecting children who could be at-risk for health problems based upon their family's functioning patterns.

Family Structure

In this second section, the influence of family structure on the health of children is considered. It has been suggested that children in one-parent families have more health problems than those in two-parent families (Jennings & Sheldon, 1985). The nuclear family has been viewed as the optimal structure but with the increase of out-of-wedlock births and cohabitation, the concern about the health of children living in non-nuclear families had gained even more attention (Edwards, 1987).

The reasons given for the difference between one- and two-parent families is that one-parent families are believed to experience lower levels of economic status and social support. The effects of these variables on child health have been tested in the following literature which has been divided into three groups; family composition, utilization of medical services, and sibships. The literature on each of these categories will be presented first followed by a discussion of the findings.

Hanson (1986) recruited forty-two separated and divorced single-parent (mothers, n = 20; fathers, n = 22) families to complete the Family Health Inventory, the FES (Moos & Moos,

1981), and the Family Interaction Schedule (FIS; Straus, 1965). One child was chosen from each family. The results showed that healthy parents had healthy children. Social support was also related to health outcomes. Mothers tended to have more social support than fathers. These findings indicate that although social support plays an overall role in child health, the marital status of the parents is secondary to the personal health of the parent.

The fact that the parents self-reported the data for this study may account for some of the difference found between groups. Parental perceptions may not actually reflect the health of the children. Also, no control group was studied. Different results may have been found if the single-parent families were compared to two-parent families.

Health data have also been taken from schools to illustrate that family structure is related to child health (Lazarus, 1980). Health was determined by visits to the nurse and absenteeism which was not associated with truancy, suspension, or expulsion. Among elementary children, no significant difference was found between the determinants or between single- and two-parent families. On the secondary level, however, more clinic visits were made by students from single-parent families. These students also tended to be absent more often than there two-parent family counterparts.

Another family structure variation is kinship care. With current estimates of 40,000 foster children becoming over half a million by the year 1995, the effects of placing these children with relatives is being studied (Dubowitz, Feigelman, Zuravin,

Tepper, Davidson, & Lichenstein, 1992). This study clinically assessed 407 foster children of which half were placed with relatives. Physicals were given to assess health level.

The children placed in kinship care appeared to have increased health problems such as poor growth, obesity, and asthma. However, these problems were not significantly different from those found among foster or poor children. This suggests that children in out-of-home placement are at a greater risk for neglect, abuse, and overall health problems.

Overall the literature in this section is lacking. More research is needed on family composition before any definite conclusions can be drawn. Studies comparing the overall health of children in one- and two-parent families are an area in need of further research. Also, these studies should include analyses between the different types of marital status (married, divorced, separated, widowed, and single). It could be that the stress level associated with the marital status is more of a factor in child health than actual marital status.

Utilization of Medical Services

The use of medical care can also be an indicator of health. The present studies were conducted to analyze the differences, if any, between the use of medical services between one- and two-parent families. Worobey, Angel, and Worobey (1988) utilized the data collected by the National Center for Health Statistics (1981). Nearly 7,000 children were sampled. Eighty-two percent lived in two-parent homes, thirteen percent in female-headed homes, and five percent in female-headed subfamilies. The

subfamily living arrangement, in which a single mother lives with one or more of her children in someone else's household, appeared to be an alternative to the intact family.

The single mothers reported a lower level of health for their children than did mothers in the two-parent families. In addition, no significant differences in health ratings were found between the subfamilies and the intact families. This suggests that although being a single-parent can be a detriment to child health, compensation can be found through the availability of other adults.

Lau and Klepper (1988) used data from the Foundation for Child Development's 1976 National Survey of children which included information on the family's daily life and the child's well-being. Parents and children were interviewed. Information about the child's health history was provided by the parents.

The results showed the child's health to be related to the parent's use of medical services. Lack of medical service utilization and living in a single-parent family were significantly related to poorer health among the children. In order to control for confounding with the stress associated with the disruption of divorce, never married or widowed, divorced one parent, and divorced two parents homes were compared. For six to seven year olds, living in a one-parent family, more so than living in a divorced family, was the important factor in child health. For eleven to twelve year old, however, divorce had a more negative effect on health than living in a single-parent family. This study, then, seems to suggest that although medical

service utilization is related to child health, the age of the child also is important.

The utilization of ambulatory services has been studied by two research teams (Cafferata & Kasper, 1985; Moreno, 1989). Cafferata and Kasper (1985) used data from the National Medical Care Expenditure Survey of the National Center for Health Services Research regarding health care use for 1977. The survey assessed likelihood of phone use for medical advice and whether the child had ever used ambulatory services. Questions were also asked about the marital status of the parents.

In both the single-parent and two-parent families, mothers were primarily responsible for health care. Children from two-parent and extended families were rated similarly on ambulatory use. Even in the absence of illness, however, children in single-parent families were more likely to seek medical attention. This study did not directly address whether or not the responses were controlled for economic status. Knowing this might alter the interpretation of the results.

The second study used the family registration form from a family medical center (Moreno, 1989). Data were collected on 803 families (single-parent, n = 257; two-parent, n = 546) over a six month period regarding household composition, marital status, etc. A National Health Interview Survey was administered to obtain parental perceptions of their children's health.

An increase of ambulatory service use was demonstrated among single-parent families. These families also had a high rate of needing care but a low rate of obtaining care. This suggests that by factoring in the high need/low obtaining care data from

the single-parent families a larger difference in ambulatory service use between single- and two-parent families might be found.

Overall, there does seem to exit some relationship between utilization of medical care, marital status, and child health. Further research will more clearly define these relationships. It is possible that further research will shed light on whether single-parents utilize medical services for actual health reasons or if use is correlated with the single-parent's stress level. None of the studies in this area addressed the actual health of the children, only that the children use a medical care facility. In addition, phone contacts should also be studied to determine if single-parent families not only use medical facilities more than two-parent families, but if they also seek medical consultation over the phone more than do two-parent families.

Sibships

In addition to marital status, sibships have also been studied and have been found to have no relationship to health. Gowers, Kadambari, & Crisp (1985) studied 252 anorexic patients (males, n = 24; females, n = 228) through retrospective analysis. Lacey, Gowers, and Bhat (1991) studied bulimic patients in London where family information as gained from both the patient and the parents. Dolan, Evans, & Lacey (1989) administered demographic questionnaires to forty bulimic women. All of these studies found no relationship between birth order or number of siblings and the outcome of the eating disorder. Related to this is the Snelling (1990) study which found no relationship between birth

order or family size and chronic pain suffering. These consistently nonsignificant findings seem to suggest that focusing on marital status more than on birth order or number of siblings may prove more beneficial in gaining information of the effects of family structure on child health.

Although the single-parent family has been considered to be in need of assistance when facing child health issues (Burns, 1984; Horowitz & Perdue, 1977), some researchers hold that family structure does not play a significant role in child health. Mechanic and Hansell (1989) studied adolescents in seventh, ninth, and eleventh grades in nineteen New Jersey communities. This longitudinal study found that regardless of reason for the missing parent (i.e. divorce, death, or separation), single-parenthood had no significant effect on child health.

Conclusions and Implications

In the area of family functioning, dysfunctional family characteristics seem to be well defined. Causality remains a question and finding the answer is hindered by the ethical problems in studying the family. Overall, though, enmeshed, conflicted, and rigid family styles appear to be implicated in many aspects of child health. Among those are asthma, cancer, and diabetes, but further research in each area is needed. The literature at present is small and expansion is necessary before

any definite conclusions can be drawn about the relationship between family functioning and child health.

Perceptions of family functioning has been heavily relied upon for information about the functioning patterns within the family. Although Waller, Slade, and Calam (1990) have found that a daughter's perception of her family was the best predictor of whether the daughter was anorexic or bulimic, observational studies may not only provide additional support, but may also provide new insight. Further research focusing on this problem might result in a technique to be used in determining and addressing dysfunctional patterns in family functioning before they have an opportunity to negatively effect the health of the children in the family. Future research should not explore only prediction of eating disorders but also on predicting at-risk families with other chronic illnesses so as to focus on those that are unable to cope with the stress of the illness on their own. Early prediction might enhance and promote positive treatment outcome for such chronic illnesses as asthma or diabetes.

The family structure literature tends to support the nuclear family as the optimal structure for health promotion. However, it is unclear if the shortcomings of the single-parent family are due to the absence of a parent or to the stress that created the single parent. More focus on the interactional patterns of the single-parent family might create new insight. Also, single-parent families tend to have less money and less time to spend on medical care. Availability of assistance, financial, support, or otherwise, might equal out the stress experienced by the single-

parent and, therefore, might reduce the difference in health levels among children in single- versus two-parent families.

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